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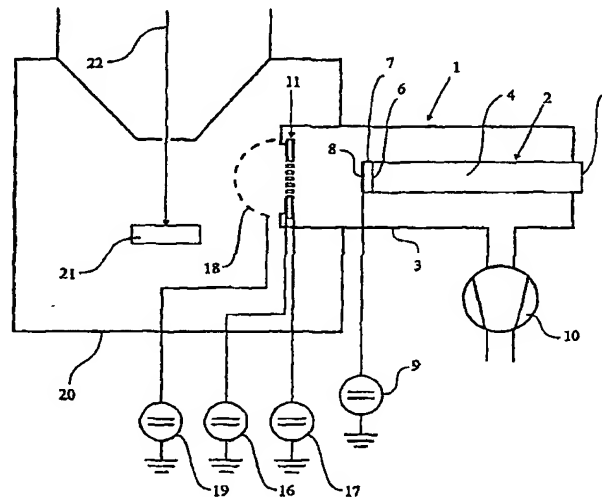
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(54) Title: **SECONDARY ELECTRON DETECTOR, ESPECIALLY IN A SCANNING ELECTRON MICROSCOPE**



(57) Abstract: The present invention deals with a secondary electron detector (1), especially in a scanning electron microscope. The subject matter of the invention provides a secondary electrons detector (1) constituted by a sensor (2) located in a detector chamber (3), to which a vacuum air pump (10) is connected to produce vacuum inside the detector chamber (3), the detector chamber (3) being in its wall near to the active surface of the sensor (2) enclosed with a diaphragm featuring high resistance to the transmission of gas and low resistance to the transmission of the electrons. The electrically conductive grid (11) is produced either in the form of a copper screen or as a capton membrane (12) with orifices (13) and it is equipped on both sides with conductive coating (14, 15). Outside the detector chamber (3), the electrically conductive grid (11) is covered with an input screen (18), which is usually of hemispherical shape and is connected to the low voltage source (19) of 80 to 150 V.

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